

Abstract of the Disclosure

Byte-operational nonvolatile semiconductor memory devices are capable of erasing stored data one byte at a time. A byte memory cell may include a memory cell array of 1-byte memory transistors. The 1-byte memory transistors may be arranged in one direction, each including a junction region and a channel region formed in an active region. A byte memory cell may include a byte select transistor. The select transistor may be disposed in the active region and including a junction region that is directly adjacent to a junction of each of the 1-byte memory transistors. The byte select transistor may be disposed over or under the 1-byte memory transistors perpendicular to the arranged direction of the 1-byte memory transistors.